DIGITAL TERRESTRIAL TELEVISION - EVERYTHING YOU NEED TO KNOW

1. What is Digital Television?
   Digital Terrestrial Television refers to the use of a network of TV transmission towers on earth as opposed to satellites in space to broadcast digital as opposed to analogue signals.

   SABC, eTV and M-Net are analogue signals broadcast terrestrially. DSTV and Top TV are digital signals broadcast from satellite.

2. What do the terms Analogue and Digital mean?
   An analogue signal can have any number of values. A digital signal can have only the values zero or one. A digital signal can be more easily corrected of errors caused by unwanted electronic noise than can an analogue signal. This is why an analogue TV picture like SABC becomes gradually more snowy as the signal weakens whereas a digital TV picture like DSTV remains perfect while the signal weakens until a level is reached where the error correction electronics can no longer function, at which point the picture freezes.

3. What is the difference between digital terrestrial television (DTT) and satellite television?
   These are simply different ways of broadcasting a signal. Satellite television broadcasts from a satellite in space from which you receive via a satellite dish that is mounted to your house. Digital Terrestrial Television uses transmitters on the ground to broadcast the signal which you then receive using a TV aerial and set top box.

4. When people talk about “digital migration” or “digital switchover” – what do they mean?
   This is the process of moving from an analogue to a digital TV broadcast.

5. Why do we need to change from analogue to digital TV?
   In keeping with other countries and advancing technological developments worldwide, the government has decided to migrate from analogue TV to digital.

   The benefits of digital TV broadcasting include:
   - Excellent picture quality
   - Clearer sound
   - More channels
   - A digital TV guide which can be easily updated for more accurate schedules.
   - Interactive services like games or the Weather channel.
   - Picture quality which does not deteriorate with a weaker TV aerial signal. Your TV picture will either be perfect or you will have no picture at all. No more snowy pictures.
   - Allows transmission of high definition (HD 1080) TV pictures

6. What do I need to do to switch to DTT?
   DTT is already available in some areas around South Africa. In most areas, Sentech (the main signal distributor) offers this service using terrestrial reception - "DTT zones", but in some areas coverage is provided using other means, including satellite (DTH DTT) - "DTH zones". This is because, in technical terms, it is virtually impossible and economically unfeasible to cover 100 percent of the population using terrestrial transmissions (given use of a single frequency network).

   Therefore, to switch to DTT, the first step is to find out what type of coverage there is where you live, i.e. you need to find out whether you live in a DTT zone or DTH zone.

   Sentech will publicise information on the type of DTT access coverage per area which will assist consumers before they purchase any equipment.
Before purchasing any equipment make sure that you have direct access to DTT in your home. If DTT is not available, or provision is limited, you may need different equipment to receive DTT (for example, a satellite dish and a set-top box for satellite reception). This information will be provided by Sentech in due course.

7. **What equipment do I need to watch DTT?**
   When South Africa goes digital, everyone currently using a TV aerial will need a decoder (also called a set top box or STB) which will decode the digital signal. Without a STB (similar to M-Net decoder), your TV won’t be able to display the digital television picture.

8. **Does that mean I need a new M-Net decoder?**
   Yes – your current M-Net decoder is an analogue decoder and will have to be replaced with a digital decoder.

9. **What is an integrated digital television?**
   In the next few years it may be possible to buy a TV with a decoder built into the TV. These are called integrated digital televisions because the decoder is integrated. These are not yet available in South Africa.

10. **Will I need a new TV aerial?**
    Probably not. Some viewers may need new TV aerials and in some instances TV aerials may only need to be adjusted. Whether or not you need a new TV aerial or an adjustment to your existing TV aerial will depend how good the DTT signal is in your area.

11. **Will I need three STBs: One for SABC, one for eTV and one for M-Net?**
    No, only one - Your STB will be able to receive digital channels from all licensed South African broadcasters. Even if you unsubscribe from M-Net, your STB will still receive digital channels from SABC and eTV.

12. **What are the characteristics or technical specifications of the equipment I will need to receive DTT?**
    DTT transmissions in South Africa use DVB-T2 technology and MPEG-4 compression. Therefore, to receive DTT broadcasts, the technical specifications of SANS862 must meet the following two conditions:
    - it must be compatible with the DVB-T2 standard;
    - it must be capable of MPEG-4 video decoding.

13. **When is digital TV starting?**
    Field trials for DTT started in November 2008. The SABC and eTV tested free-to-air digital transmissions while M-Net tested Pay-Tv digital transmissions on a selected group of viewers. Further tests will now take place in the new DVB-T2 format. Watch the media for announcements on when digital TV starts for the general public.

14. **Why is digital switchover taking so long?**
    Government announced in 2008 that we would be using the DVB-T format for our digital terrestrial television. In 2010 government called for a review to consider the ISDB-T format. In January 2011 the minister of communications announced the decision to use the DVB-T2 format. The Broadcasting Digital Migration (BDM) policy was approved by the Cabinet in 2008 and has since been amended a number of times. A revised version was tabled and approved by Parliament in March 2015.

15. **When will the set top box be available for purchase?**
    Set top boxes for the DVB-T2 format of DTT are already available in England. They will be on sale in South Africa as soon as DTT is broadcast to the general public. Watch the media for an official announcement.

16. **When will it affect me?**
    The government will announce the date December to discontinue analogue broadcasts. If you don’t have a set top box by this date, you won’t be able to watch any TV programs received by your TV aerial.

17. **If I’m a DSTV or Top TV subscriber, what do I need to do?**
    Nothing. The changeover to DTT only affects broadcasts received on a TV aerial. DSTV and Top TV received on a satellite dish are already in digital format.
18. Will I be able to watch DTT if I only have a satellite dish?
No, will you will need to have a TV aerial installed and a STB connected to your DSTV system if you also want to watch DTT programs.

19. If I have three TV sets in the house, will I need three STBs?
Only if you want each TV set to show different channels at the same time, otherwise one STB will be able to display the same program on multiple TVs provided your TV aerial wiring is correct.

20. Do I need a high definition TV for this switchover to DTT?
HD television is not required to watch digital broadcasts, but if the programme content was recorded in High Definition the user of HD Television will see improved clarity and detail which was never possible on analogue broadcasts.

21. What do I do if my set top box does not provide a good quality TV picture?
This could be caused by a faulty TV aerial or TV wiring or signal reception problems such as multipath error. The contact information will be announced in due course. Watch the media for an official announcement.

22. Can I still use my DVD or video player/recorder with DTT?
You can still use your old DVD or video player/recorder with DTT. Usually, DTT set-top boxes have additional outputs which can be connected to a recorder or player. Some have a hard drive which means you can record, stop and restart broadcasts.

23. When will I need to be ready to receive DTT?
DTT has been available to the entire population since the end of 2010. In some areas, both types of transmissions (new digital and old analogue) are available (simulcast). Some users may therefore still be able to receive television using their current equipment, but will also be able to receive digital broadcasts once you have the proper equipment.

In practice, you can still watch television, without making any changes, until your local transmitter/relay is switched off. However, it is strongly recommended that you install the equipment you need and make sure that your television sets are ready to receive DTT in advance. In this way, you can be sure that you will not have any last minute problems and you will be able to start benefiting from the qualities of DTT sooner.

24. If I subscribe to a paid television service, can I access DTT?
If you subscribe to a paid television services, you will not need to access DTT, since you will continue to have access to the Free-to-Air Channels (SABC 1, 2, 3 and eTV).

However, you should check that all your televisions sets are connected to the subscription television service. Otherwise, you should get them ready for DTT. The same applies if you want to stop subscribing to paid television services.

25. What is the difference between the installation of DTT and the traditional television service?
DTT does not require the use of cable transmission or, in most cases, the use of other aerials. It is transmitted through the air and is received by aerials in the same way as traditional television. Nevertheless, in some areas, aerials may need to be re-pointed and, in a small number of cases, may need to be replaced, especially aerials that are very old.

Your television set must also be suitable for digital transmission, with a DTT tuner or through a DTT set-top box (when the television set does not have DTT).

In areas covered by alternative means to DTT (via satellite - DTH), ‘Sentech will make information available about the equipment required, since this will be different to the equipment required for DTT reception.

26. What will the Set Top Box cost?
The government will subsidise 5million needy tv owning household with a free STB. There are no additional costs to receiving DTT.

27. Where can the Set Top Box be purchased?
Sales of STBs to the end-users would be done through appointed service providers, retailers and enterprises. The objective is to ensure that end-users do not struggle to receive the products irrespective of their localities. Set Top Boxes are not available for sale to the public as yet. They will most likely be available during the second half of 2015 at all retail shops. Watch the press for details.
28. Will I need to buy a new television set to receive DTT?
No, you do not need to buy a new TV. All current analogue television sets will be able to receive DTT.

Note that no television currently on the market will be able to receive the digital TV channels without the STB. A TV that is ‘digital ready’ or ‘HD ready’ does not mean that it can receive the digital TV broadcasting without a STB.

29. How do I establish if my TV will be compatible to the Set Top Box?
All television sets are compatible to the STB.

30. When will the Set Top Box and the new DTT services be available to me?
There are a number of areas that still need attention before the service is gradually made available to the public in a phased approach.

The digital network will be rolled-out over a period of three years. This means you will need to check when the digital signal will be available in your specific area.

31. Is there a subsidy available to acquire DTT equipment? What if I cannot afford the Set Top Box? Does this mean that I will not be able to watch television after Migration?
The 2008 Broadcasting Digital Migration Policy states that Universal Service and Access to all citizens is a key component of a successful migration to the DTT platform. The Government will provide free STB to more than 5 million poor television household owners. The priority will be given to those household in the border region areas of the country and those living around the Square Meter Array (SKA) areas in the Northern Cape.

The following groups are eligible to receive subsidies:

- Poor South African people with green ID book.
- Households who are in possession of a functioning TV set and are not subscribers to paid television services.
- Households dependent on social grants
- Households already covered by the SABC concessionary TV licence scheme.
- South Africans living around the border region areas of the country and SKA in the Northern Cape.

The subsidy will be allocated by the Universal Service and Access Agency of South Africa (USAASA) a government agency mandated to disburse subsidies for STBs.

32. Does this subsidy only cover DTT households?
Both DTT and DTH (Direct to Home) will be covered by this subsidy?

33. Will I need to pay a subscription every month like DSTV?
No, the purchase of the STB is a once-off cost. You will, however, have to continue paying your TV license.

34. How does South Africa fit into the worldwide broadcasting landscape?
South Africa coordinates its frequency plans with other countries to ensure that there is no interference with other countries’ broadcasting signals.

This means that analogue TV broadcasts are currently protected from interference. However, the International Telecommunications Union (ITU) has mandated that this protection should stop by 2015. Bilateral engagements with neighbouring countries will have to be resume beyond 2015.

35. Has this migration been done elsewhere in the world?
Yes. Examples of countries that are advanced in their migration process include the United Kingdom, New Zealand, Sweden, the United States, France and Mauritius. Every country on the planet is committed to completing the switch to digital TV.

36. The digital TV test signal was switched on 1 Nov 2008. What happened on this date?
The digital signal was switched on by Sentech in order to make the digital signal available to test DTT and STB technology.

This trial is being conducted with a small sample of viewers. Once the services and technology have been tested adequately STBs will be made available in retail stores.
The actual date will be communicated to the public as soon as all relevant logistical, legal, technical and policy issues have been addressed.

37. Who are the various role players and what are their roles?

Government
Is responsible for developing the policy for Broadcasting Digital Migration (BDM). Government is also responsible for ensuring that funding is available for the Scheme for Ownership Support (SOS) for poor households and for the development of a STB manufacturing strategy. The Department of Communications is driving this process on behalf of government and is working with other government departments such as the National Treasury.

Broadcasters
Terrestrial broadcasters need to migrate their services onto digital. The affected broadcasters are SABC, ETV and MNet. They will be responsible for establishing new services, migrating existing services (SABC 1, 2, 3, ETV, Mnet) to digital. Broadcasters will have to manage analogue and digital services during the dual illumination transition period of approximately three years during which both the analogue and digital signals will run parallel.

Signal Distributors
Responsible for rolling out the digital network infrastructure on behalf of broadcasters. The main signal distributor affected is Sentech. Other signal distributors such as Orbicom (for Mnet) are also involved.

South African Post Office (SAPO)
The role the South African Post Office will play in this initiative will be the processing of payments for the Set-Up Boxes, issuing of the Set-Up Boxes and the payment of the Installers to install the equipment. The South African Post Office will also verify if the applicants’ SABC television licences are valid and up to date”.

Universal Service and Access Agency of South Africa (USAASA)
USAASA’s mission is to facilitate and maintain universal services and access to information and communications technology, as part of its mandate it has to disburse subsidized STBs to approximately 5 million TV-owning households considered needy and deserving.

ICASA
The regulator responsible for regulating the telecommunications and broadcasting sectors. ICASA will be responsible for the frequency planning and allocations, and the issuing of licences for digital services. New digital services cannot be launched without a licence or authorisation from ICASA.

Manufacturers
Responsible for the manufacturing of STBs and to ensure that the boxes are compliant with the standards set and do actually work.

Retailers and Consumer Bodies
They are to provide accurate information to the consumers so they can make the right choices when purchasing STBs and that shop floor staff are informed sufficiently to correctly advise the consumers. Overall is to make certain that STBs available for purchase by the consumers before the analogue signal is switched off.

Unions
To ensure that digital migration will indeed improve material conditions of South Africans and the working masses. Furthermore, that South Africans are well equipped to determine their own future in the country and in the economy.

The digital migration process presents opportunities for job creation in the manufacturing of the STBs and antennas as well as the installation and repair thereof.

In addition, the establishment of a call centre as part of the consumer support would also create employment opportunity to young people.